

LAPSSET CORRIDOR DEVELOPMENT AUTHORITY
LAPSSET PRESENTATION TO THE WEBINAR ON
UNLOCKING PORT INVESTMENT OPPORTUNITIES
25th MARCH 2021

**BUILDING TRANSFORMATIVE AND GAME CHANGER INFRASTRUCTURE FOR A SEAMLESS
CONNECTED AFRICA**

PRESENTED BY:

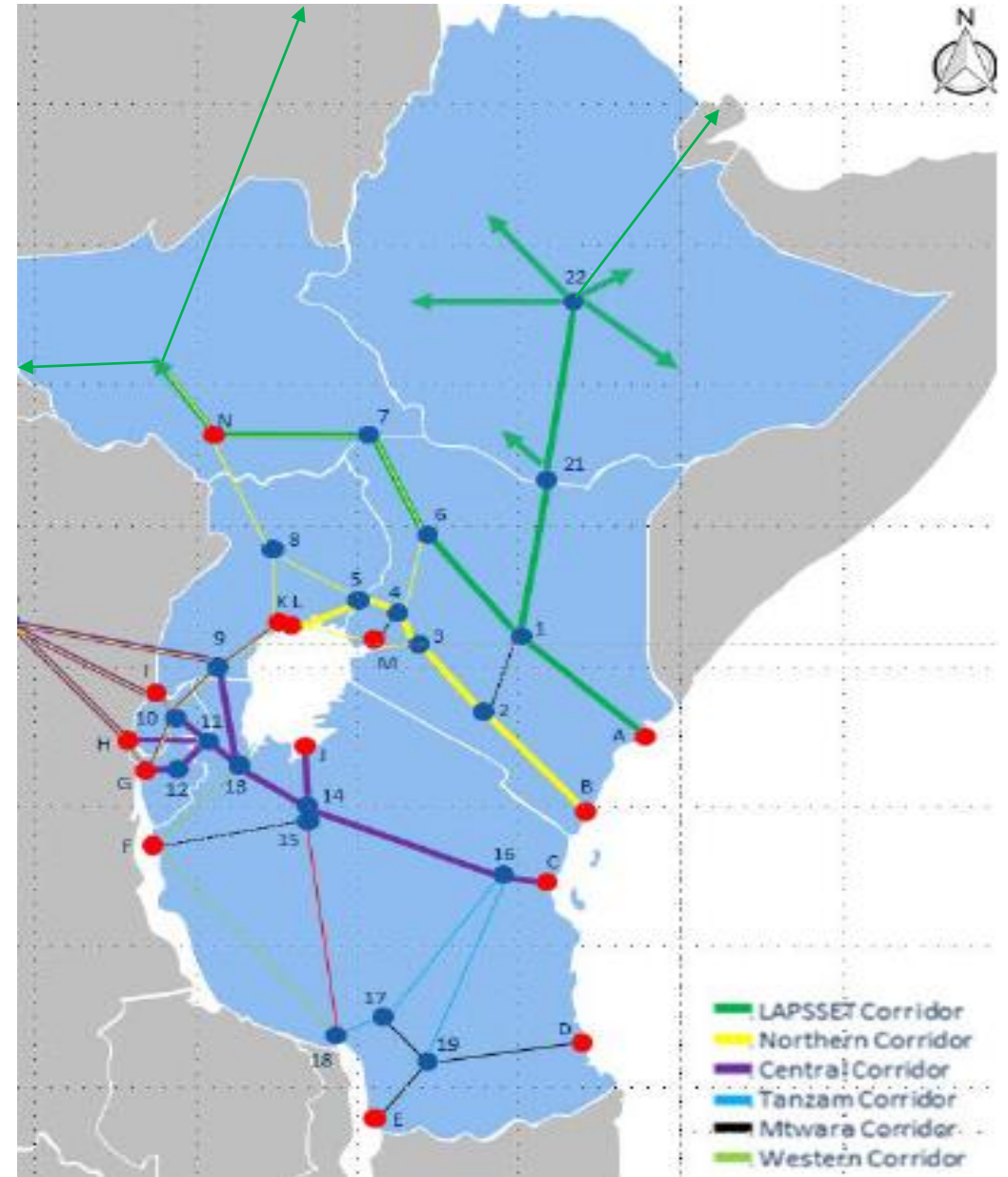
MAINA KIONDO
DIRECTOR GENERAL/CEO

7 KEY COMPONENTS OF LAPSSET

LAPSSET Corridor stands for Lamu Port, South Sudan, Ethiopia, Transport Corridor

It is a regional multi-modal infrastructure project between **KENYA**, **ETHIOPIA** and **SOUTH SUDAN**. The Key components are:

1. Lamu Port and SEZ
2. Highways
3. Oil Pipelines
4. Railway
5. International Airports
6. Resort Cities
7. High Grand Falls Dam





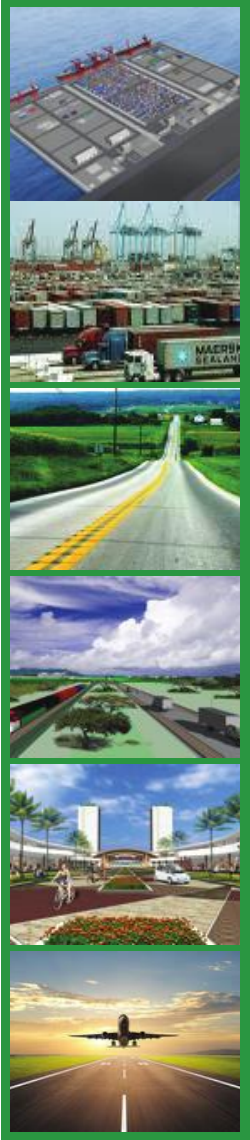
LAPSSET CORRIDOR PROGRAM FROM A REGIONAL PLANNING PERSPECTIVE

The LAPSSET Corridor Program is a Kenya Vision 2030 Project which is Kenya's blue print for long term development

The Program was also admitted as one of the 10 African Union Presidential Infrastructure Champion Initiatives (PICI) giving it a continental platform for support and development

The Program is also a Program for Infrastructure Development in Africa (PIDA) priority. PIDA seeks to develop the following infrastructure in Africa as part of AU Agenda 2063:

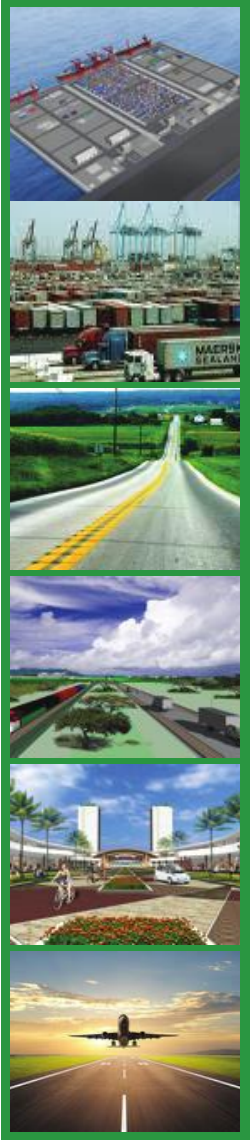
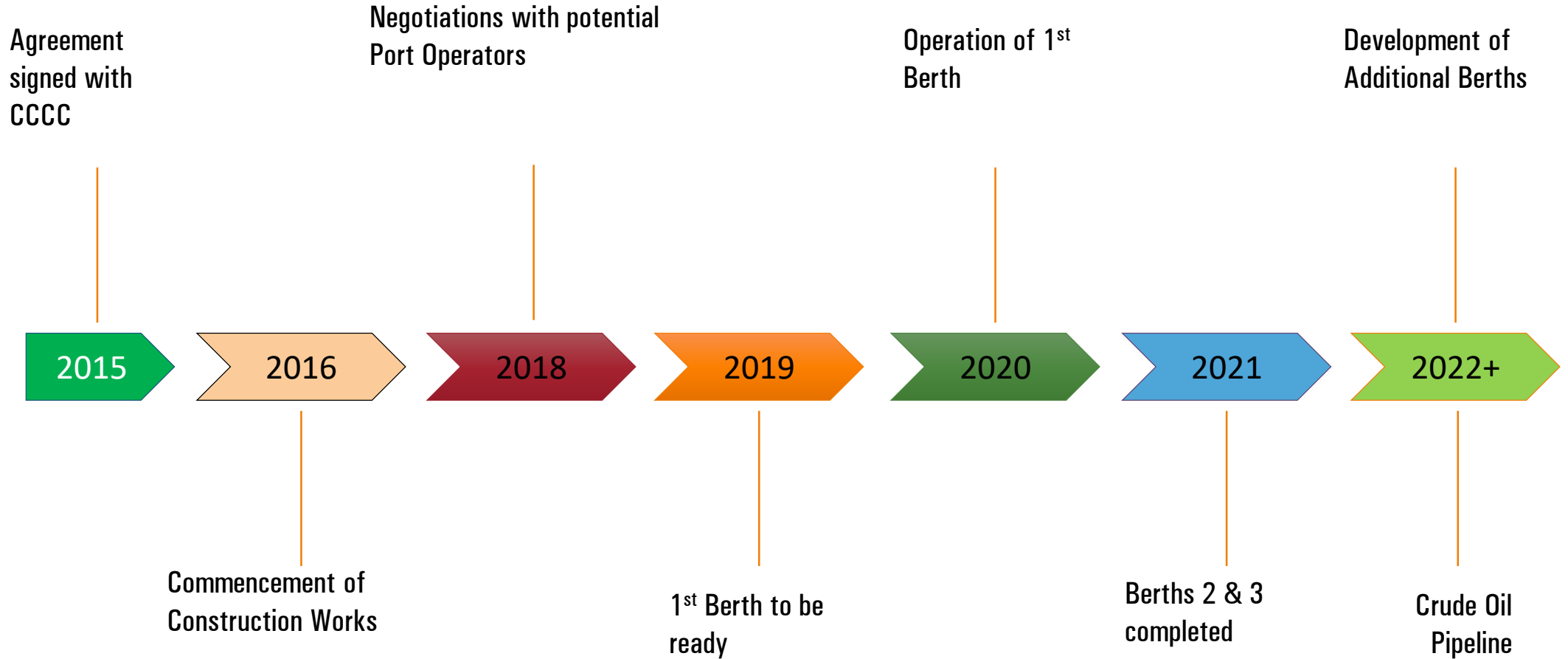
- **Modern Highways: 37,000 km**
- **Modern Railways: 30,200 km**
- **Port Added Ton Capacity: 1.3 billion tons**
 - Port of Durban plans to double capacity **44 M to 88 M tons/year by 2040**
 - Lamu Port plan to inject new ton capacity of **23 Million tons per year by 2030**
 - Suez Canal expansion project plans to inject new port added **ton capacity by 3.7 billion from 6.7 to 10.4 billion tons**



LAND BRIDGE / PORT TO PORT CORRIDORS

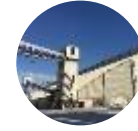


Project Timeline



PPP INVESTMENT OPPORTUNITIES AT LAMU PORT

LCDA together with its Transaction Advisors **MTBS** have identified 2 terminals at Lamu Port and Lamu SEZ as viable projects for Private Sector Investment under the Public Private Partnership (PPP) Framework.



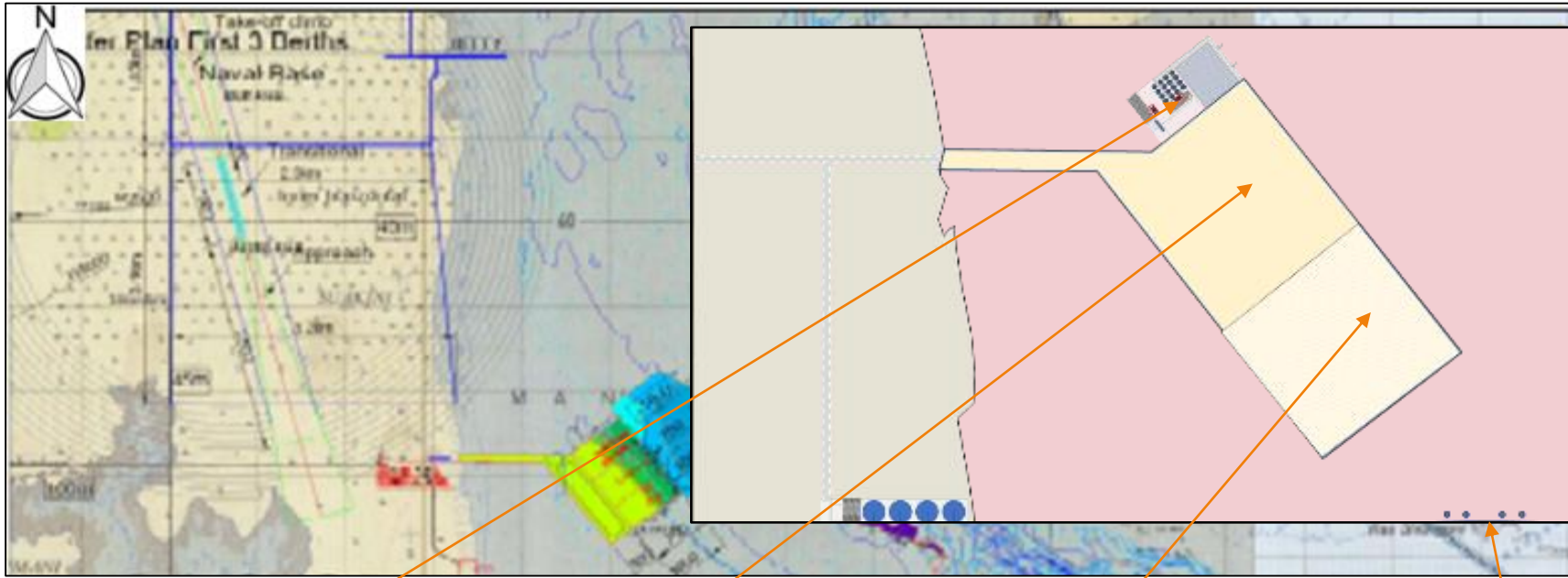
Lamu Port Agribulk Terminal



Lamu Port Liquid Bulk Terminal



Lamu SEZ



BERTH 8
DRY BULK

BERTH 7
AGRI BULK

BERTHS 1-3
CONTAINER/ BREAKBULK

BERTHS 4-6
CONTAINER/ BREAKBULK

OIL JETTY

Lamu Port Agri Bulk Terminal



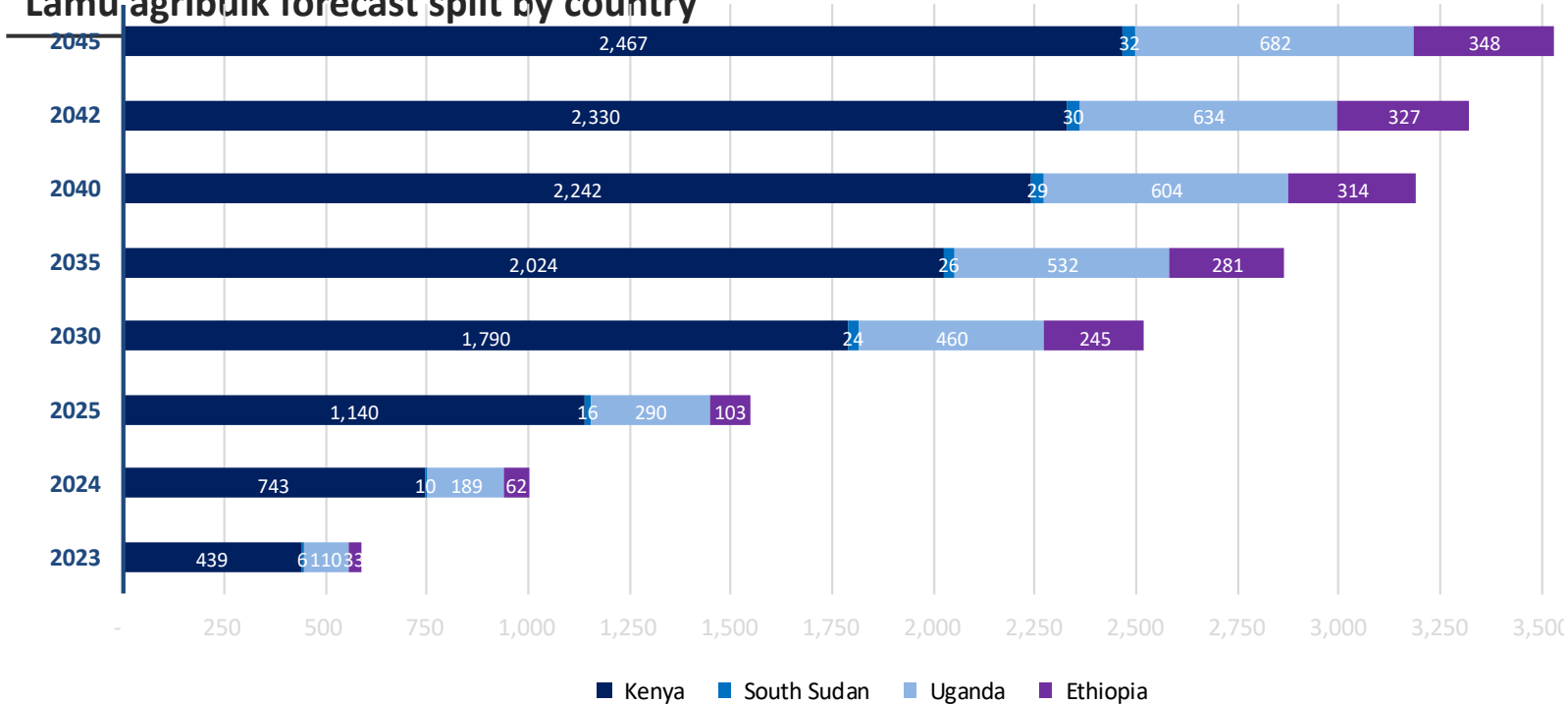


Lamu Port Agribulk Terminal

- Agribulk import demand at the port of Lamu is projected to increase from 547,000 tons in 2023 to 3.3 M tons in 2045
- Kenya** is the largest demand driver for agribulk volumes at the port of Lamu, generating approximately 70% of the port's total demand in 2045.
- EIRR of **12%**

000 Tons - Base Case

Lamu agribulk forecast split by country



Agribulk terminal investments

163 \$M

Total estimated upfront investments

210 \$M

Total estimated full-period investments

80 \$M

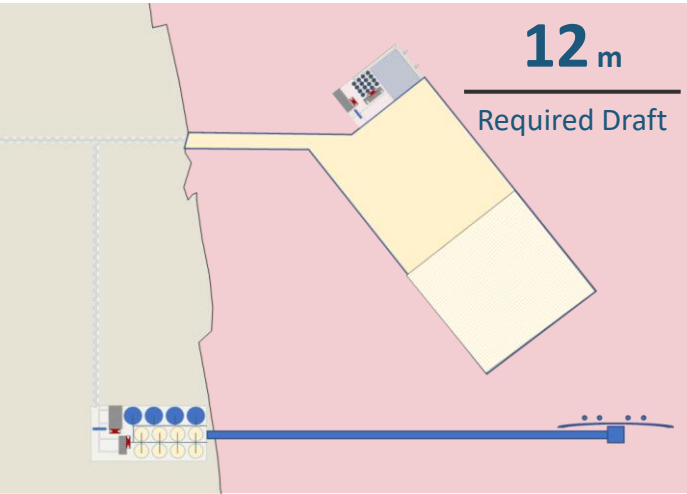
Investment costs of the causeway, the largest CAPEX component

The stage 1 agribulk terminal is foreseen to comprise a single 240m berth. Specifications can be further catered to investors’ preferences and further developments can be implemented in line with growing demand.

Terminal Infrastructure and Facilities

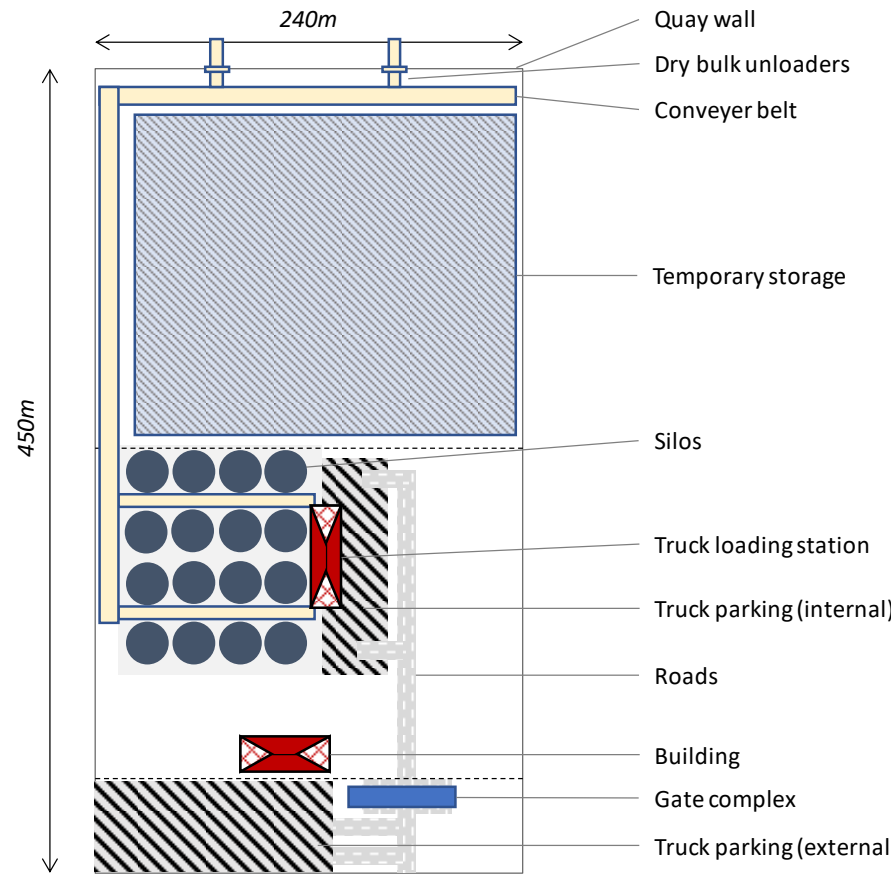
- The terminal is developed to the North of the facilities that are currently being constructed; the **quay wall for wheat** is an extension of the quay wall of the general cargo terminal.
- The tentative lay-out of the agribulk terminal includes an **area for temporary storage**, which can be used for project cargoes or ro/ro loads (in order to provide accessibility to (off)load cargo from ro/ro or general cargo vessels
- A **dedicated conveyor belt system** is proposed: the wheat import volumes quickly rise beyond 2M tons per years, which allows for efficient use of an agribulk conveyor belt.
- Wheat will be stored in **silos**, to enable high-density storage and to ensure a high product quality.
- The wheat is loaded into trucks at a dedicated **truck loading station**.
- The terminal lay-out includes internal and external **parking facilities**, to minimize congestion on the terminal.

Terminal Positioning and Highlights



10.8 _{ha}	240 _m	16
Terminal Area	Quay wall	Silos
10	2	11
Truck loading stations	Dry Bulk Unloaders	Lanes for the gate

The terminal size and layout are optimised to accommodate expected cargo flows.



In order to maximise the financial performance of the project, terminal implementation is phased. As a 1-berth terminal is foreseen, phasing is only possible in terms of superstructure and equipment.

Key observations

- Phasing is applied to superstructure and equipment investments to minimize the upfront investment burden and improve the financial performance of the envisaged project. Specifically, investments in grain unloaders, silos, truck loading stations, and gates are phased.
- Total investments – including inflation and 25% contingency – are estimated to amount to USD 210 M; total phase 1 investments are estimated to amount to USD 162 M.

Agribulk terminal investments

CAPEX Item	Total	Pre-Ops (2020 – 2022)	Operations (2023 – 2047)
Infrastructure	USD 127 M	USD 127 M	-
Superstructure	USD 44 M	USD 24 M	USD 19 M
Equipment & IT	USD 40 M	USD 12 M	USD 28 M
Total	USD 210 M	USD 163 M	USD 47 M

163 \$M

Total estimated upfront investments

210 \$M

Total estimated full-period investments

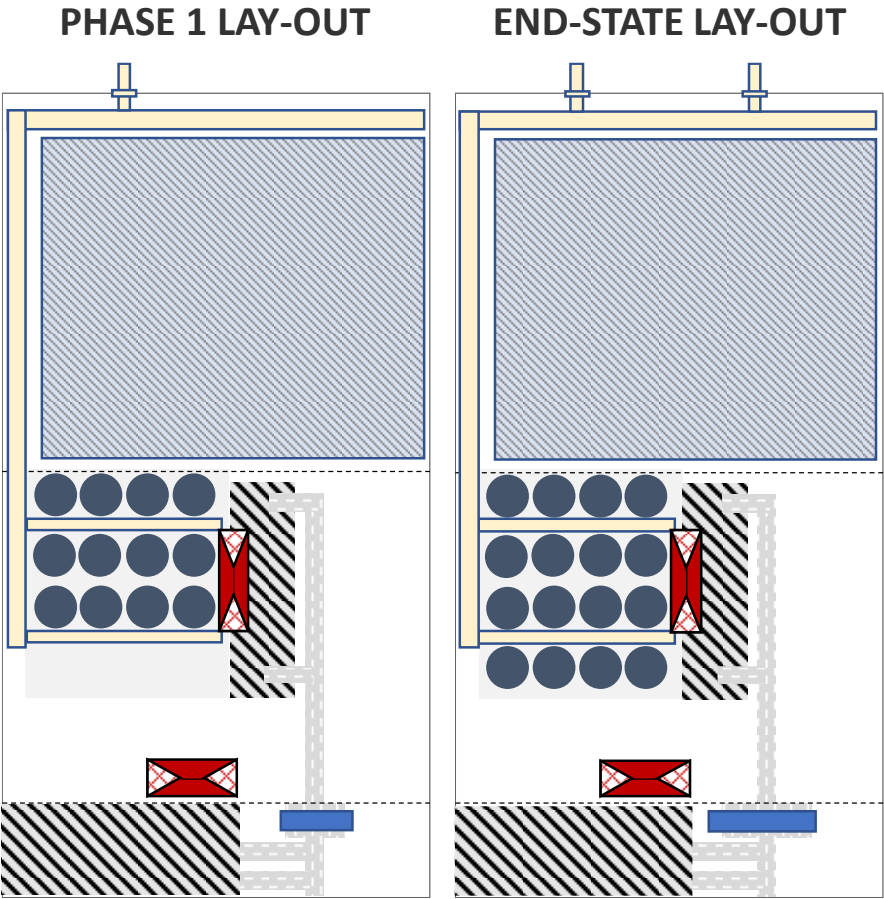
22 %

Share of investments that can be postponed to improve financial performance

80 \$M

Investment costs of the causeway, the largest CAPEX component

Phase 1 comprises a reduced number of grain loaders, silos, and truck loading stations to optimize financial performance





Lamu Port Liquid Bulk Terminal



Lamu Port Liquid Bulk Terminal

- Potential Lamu port oil demand comprises both Kenyan refined oil imports and crude oil exports from the Lokichar basin.
- The basin contains an estimated 560 million barrels in proven crude oil reserves;
- This reserve would translate to 60,000 (low case) to 100,000 (high case) barrels per day of gross production. This yields a base case average production of 80,000 barrels per day.
- Demand for refined oil product imports and crude oil exports in Kenya is expected to increase from 6.8m tons in 2020 to 19.3m tons in 2045.

Liquid Bulk terminal investments

61 \$M

Total estimated upfront investments

94 \$M

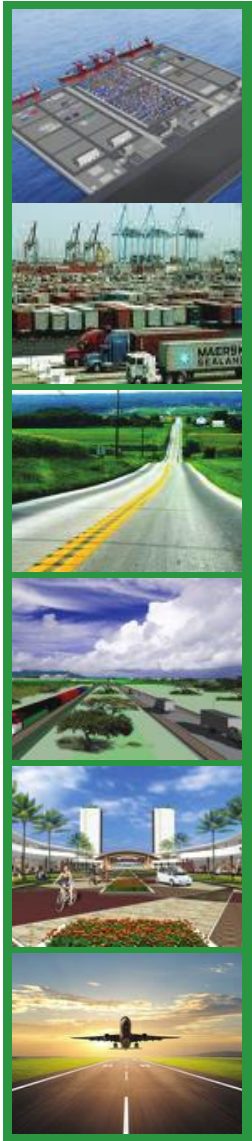
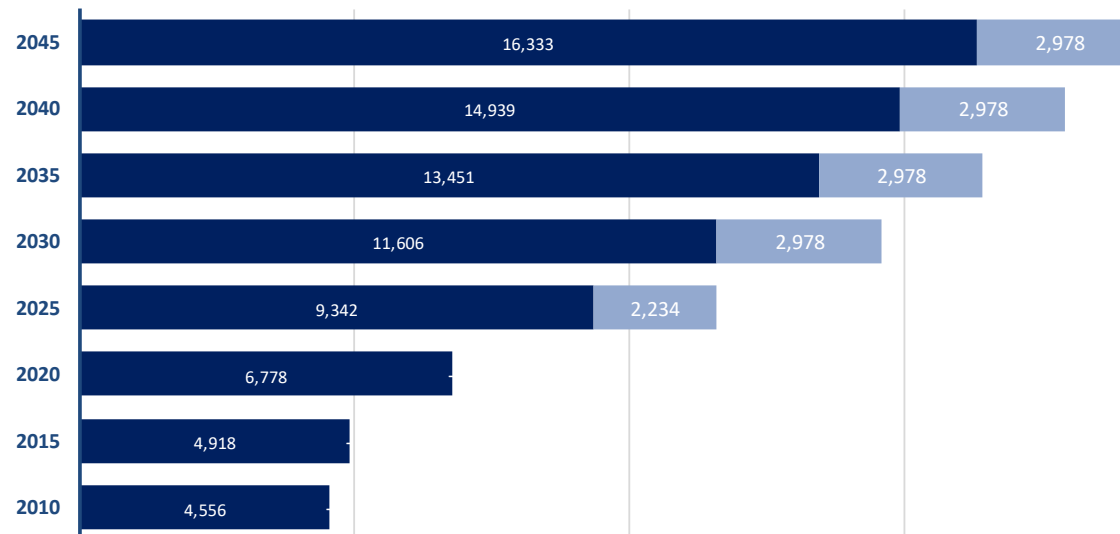
Total estimated full-period investments

22%

EIRR

000 Tons Refined Products Imports

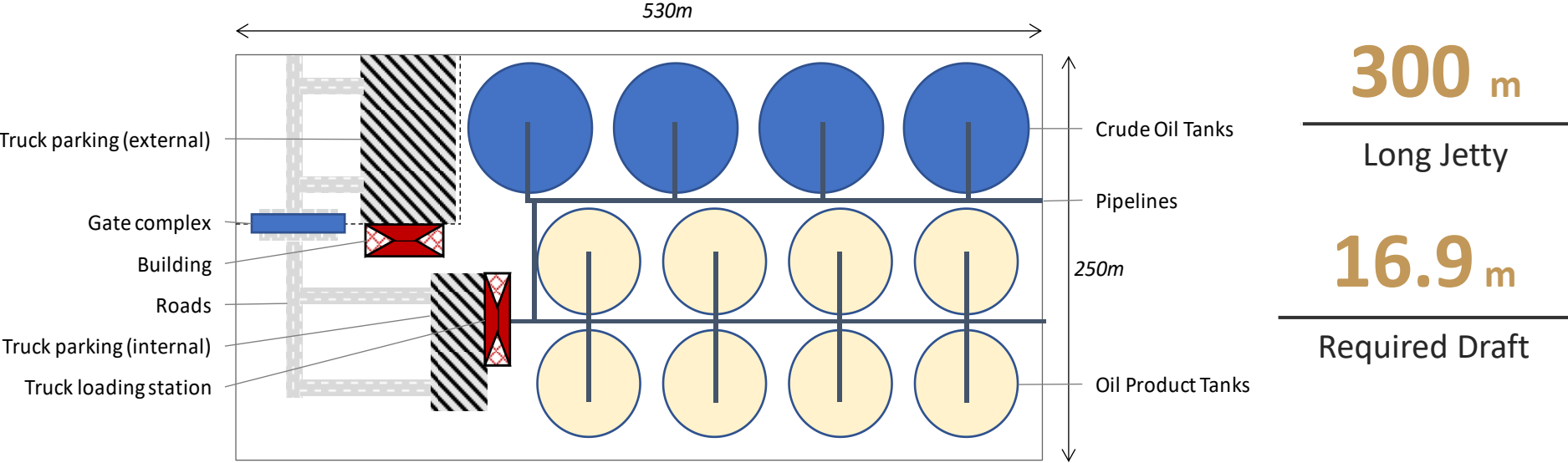
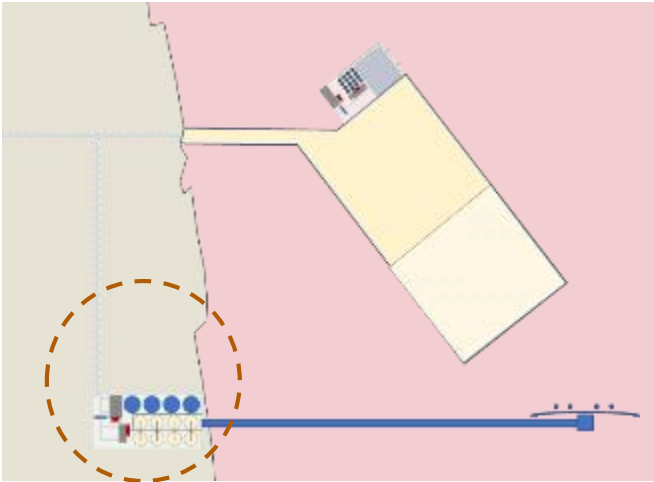
Crude Oil Exports



Lamu Port Liquid bulk Terminal

The two cargo flows are combined on one jetty

40k tons	20k tons	50%
Large Tanks	Small Tanks	Occupancy rate with 1 berth
4	8	3
Large Tanks	Small Tanks	Exit Gates



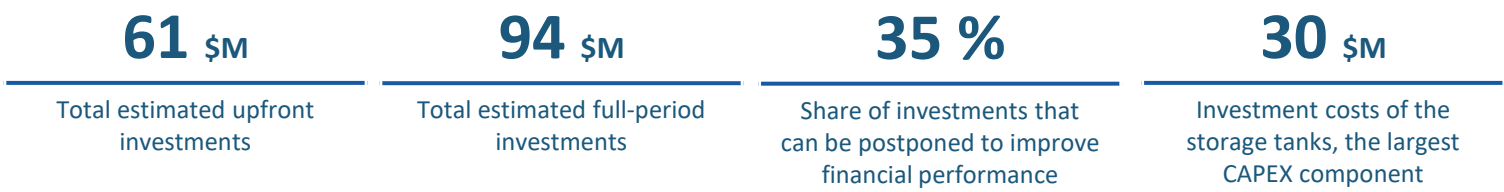
In order to maximize the financial performance of the project, phasing is applied. As a 1-berth terminal is foreseen, phasing is only possible in terms of superstructure and equipment.

Key observations

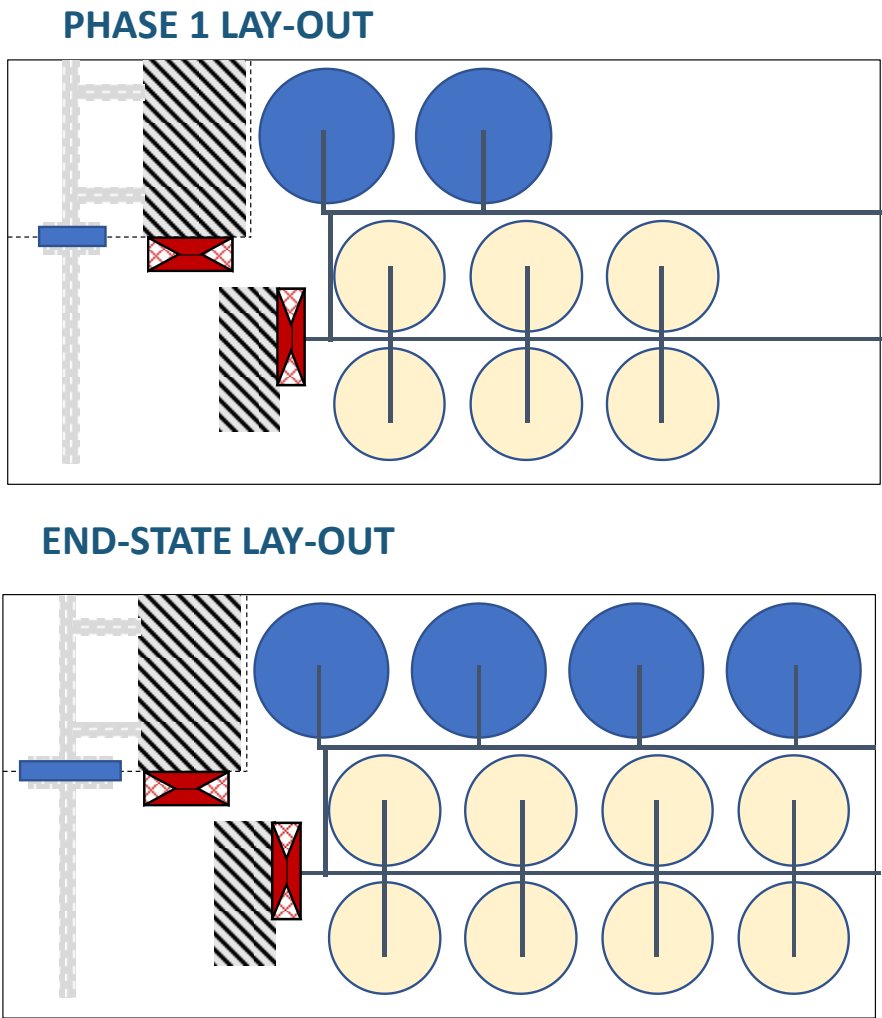
- Phasing is applied to superstructure and equipment investments to minimize the upfront investment burden and improve the financial performance of the envisaged project. Specifically, **investments in grain unloaders, silos, truck loading stations, and gates are phased.**
- Total investments – including inflation and 25% contingency – are estimated to amount to **USD 94 M**; total phase 1 investments are estimated to amount to **USD 61 M**.
- The largest component of the infrastructure group is the tank farm: a cost of approximately **USD 30M** is budgeted for this component.

Liquid Bulk Terminal upfront investments in infrastructure, super structure and equipment

CAPEX Item	Total	Pre-Ops (2020 – 2022)	Operations (2023 – 2047)
Infrastructure	USD 31 M	USD 31 M	-
Superstructure	USD 58 M	USD 28 M	USD 30 M
Equipment & IT	USD 5 M	USD 2 M	USD 3 M



Phase 1 comprises a reduced number of tanks, gates, and truck loading stations to optimize financial performance



Lamu Special Economic Zone



Lamu Special Economic Zone (SEZ)

The Government is adopting a Port - Zone – City development mode in Lamu as a strategy for promoting greater economic activities in Lamu and to make the Port more vibrant. The Port promotes trade while the City generates demand and the Industrial Zone drives economic activities to spur growth.

The Objectives of the SEZ are:

- To expand and diversify production of goods and services for domestic and export markets;
- To attract both local and foreign investments;
- To promote value addition;
- To promote local entrepreneurship through Small and Medium Enterprises (SMEs);
- To enhance technology development and innovation;
- To promote rural and regional industrialization by exploiting comparative advantage of local resources.

The Authority has made the following strides in realization of the Lamu Special Economic Zone:-

- Preliminary Planning and Investment Framework for the Lamu Port City and Lamu SEZ which detailed the location of strategic investments in the Port area is complete;
- The Integrated Transport Infrastructure Master Plan for Lamu Port City and the (SEZ) have been concluded and approved.
- Currently, the process of designating Lamu SEZ is ongoing

The development of a Special Economic Zone in Lamu will bolster the vibrancy and increase the economic fortunes of the port

- Lamu SEZ saves the tenants time, costs, and creates connectivity, hence leading to market access of the participating industries.
- **Nautical characteristics:** the Lamu port design includes berths capable of handling bulk carrier of 100,000 DWT-class, container ship of 100,000 DWT and general cargo ship of 30,000 DWT-class. This makes the Lamu Port more competitive than Mombasa Port.
- **Greenfield:** the greenfield development with sufficient space availability, offers opportunity and flexibility to develop the asset free from existing obstacles.
- **Raw materials:** the recent discovery of oil, gas, rare minerals and coal in East Africa along the LAPSET corridor makes Lamu a captive processing destination of these raw materials.

Land demand in hectares	2023	2027	2037	2047
Basic Storage	2	3	4	5
Warehousing	8	22	39	53
Light industries	8	68	328	608
Public Buildings	5	5	9	11
Roads	3	12	46	81
Landscaping	2	9	34	61
Total land demand in ha	29	119	460	820

SEZ Investments

98 \$M

Total estimated upfront investments

491 \$M

Total estimated full-period investments

80%

Share of Investments for Phases II and III

Location and key figures

**820** ha

Total area

608 haFor light
industries**59** haFor
warehousing**2**

Gates

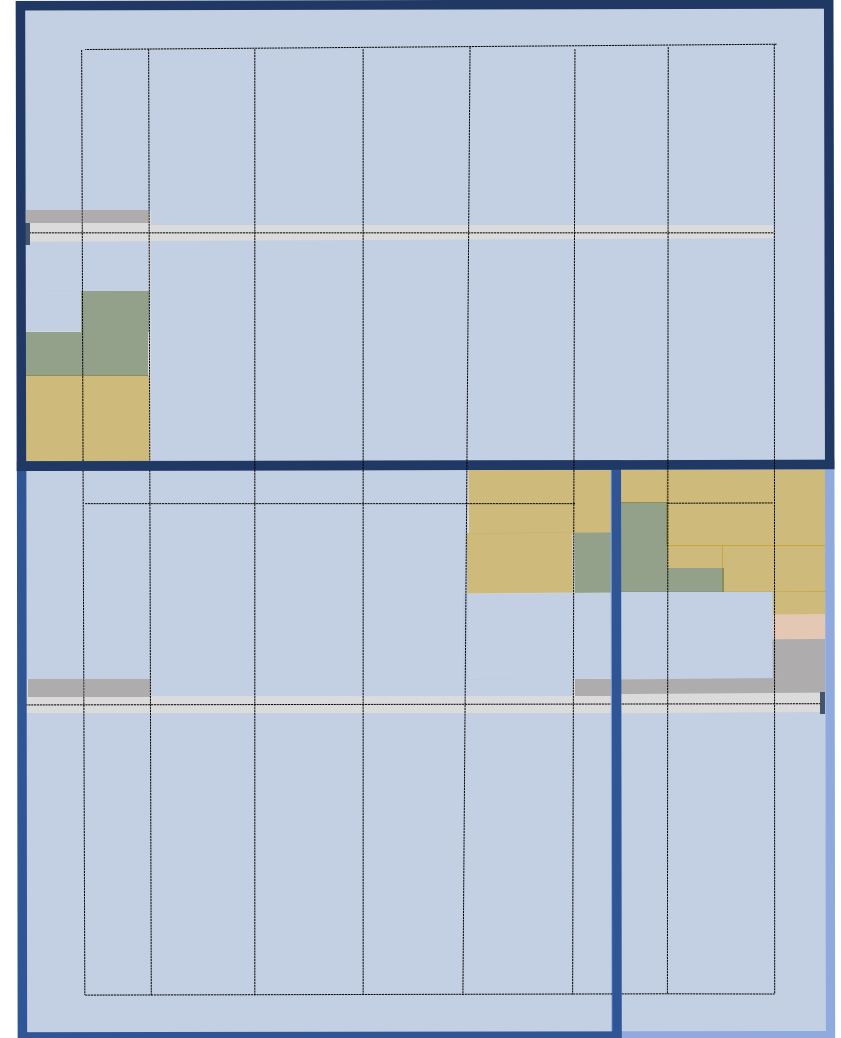
13 ha

Internal roads

2 ha

Plot size

The layout covers a total area of 820 ha



Kenya



Ethiopia



South Sudan



Uganda



REGIONAL MARKET AND DEMAND

- **Kenya** - Population increased from 41.4M in 2010 to 49.7M in 2017. Over the same period, GDP per capita increased from USD 2,436 to USD 2,961 (CAGR: 2.8%).
- **Ethiopia** - Population increased from 87.7M in 2010 to 105M in 2017. Over the same period, GDP per capita increased from USD 1,075 to USD 1,724 (CAGR: of 7.0%).
- **South Sudan** - Population increased from 10.1M in 2010 to 12.5M in 2017. Over the period from 2010 to 2016, GDP per capita increased from USD 4,103 to USD 1,678 (CAGR: -13.9%).
- **Uganda** - Population increased from 33.9M in 2010 to 42.9M in 2017. Over the same period, GDP per capita increased from USD 1,585 to USD 1,768 (CAGR: 1.6%).

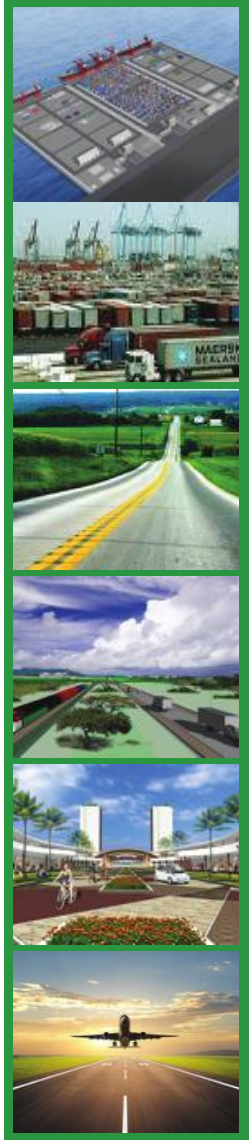
Substantial growth in port volumes is foreseen due to the following three trends:

- **Consumption growth exceeds production growth**
- **Significant growth in imports**
- **Considerable growth in exports**

515M People

Total Potential African Market Size

Kenya (.)



LAPSSET CORRIDOR PROGRAM PICTORIAL



Contractors Camp and Pipe Manufacturing Plant



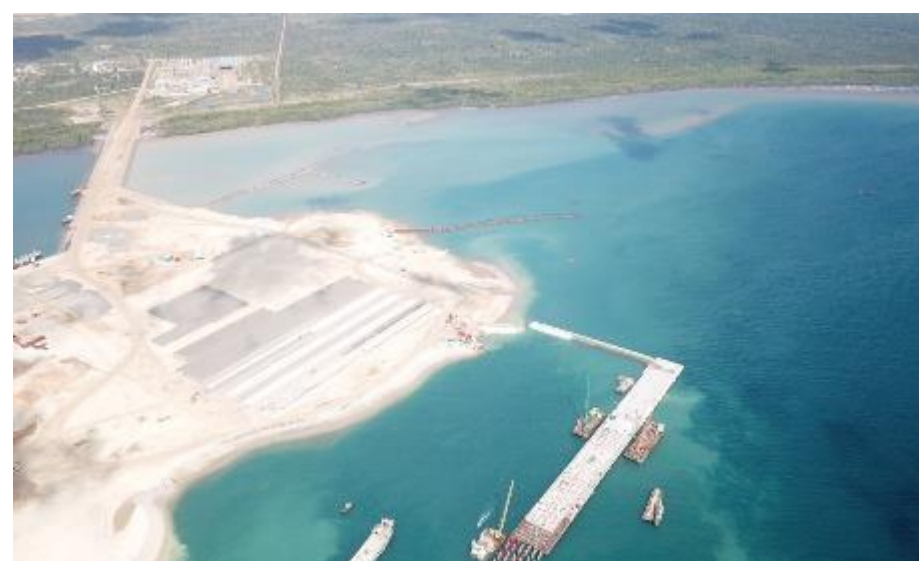
LAMU PORT CONSTRUCTION WORKS







CONSTRUCTION OF 1ST THREE BERTHS



CONSTRUCTION OF 1ST THREE BERTHS



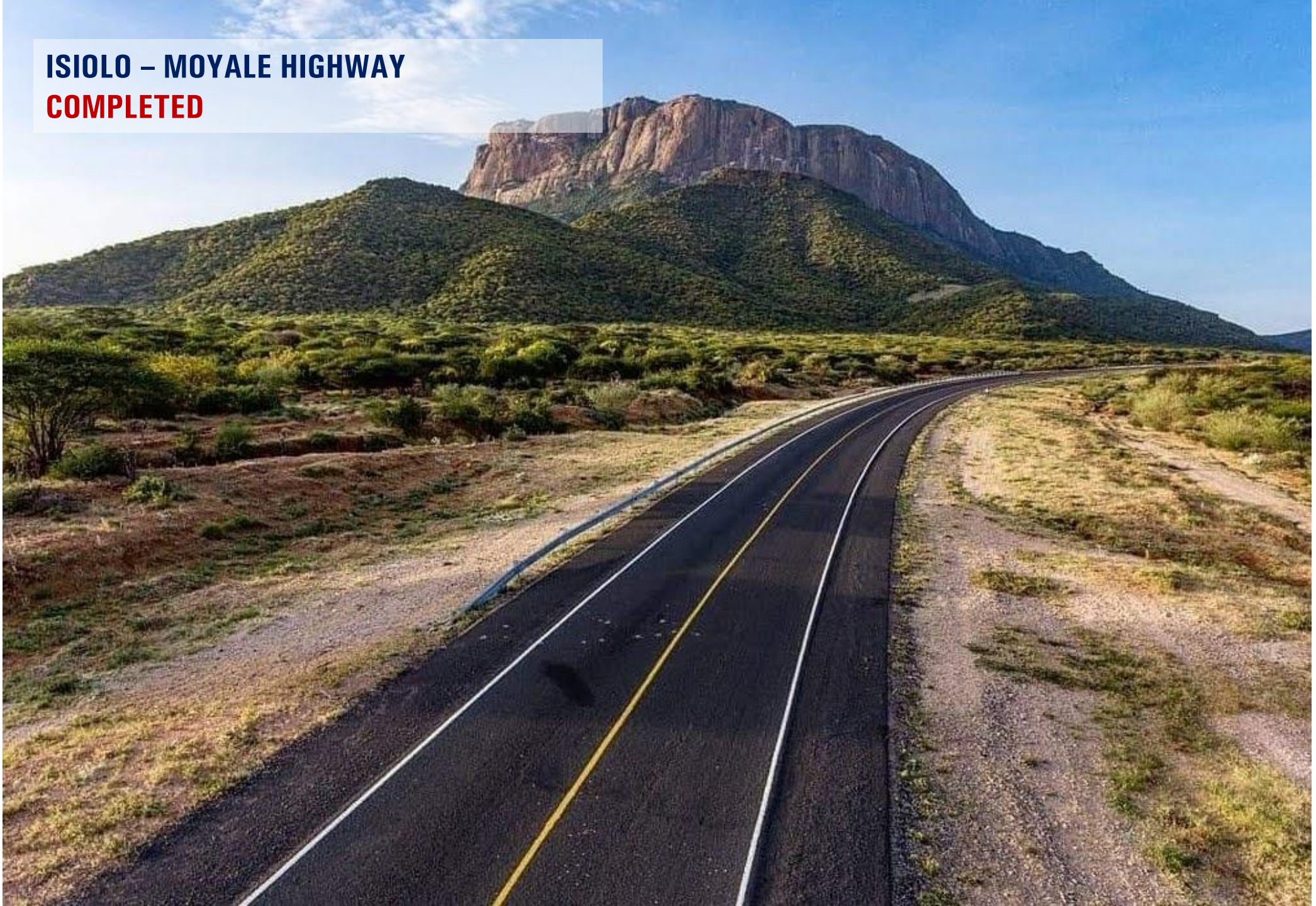
1ST BERTH COMPLETE



ISILO – MOYALE HIGHWAY COMPLETED



ISIOLO – MOYALE HIGHWAY
COMPLETED



**VARIOUS ROAD SECTIONS
COMPLETED**



**MOYALE ONE STOP BORDER POST
COMPLETED**

Crude Oil Fields





Thank You

CONTACTS / ENQUIRIES



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